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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/080,778  | 02/22/2002  | Jim Dougherty        | AINNO.0110          | 9862             |
| 7590  | 11/02/2005  |                      | EXAMINER            |                  |
| David W. Carstens<br>P.O. Box 802334<br>Dallas, TX 75380-2334 |             |                      | BASEHOAR, ADAM L    |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2178                |                  |
| DATE MAILED: 11/02/2005                                       |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |                                |  |
|------------------------------|-------------------------------|--------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/080,778 | Applicant(s)<br>DOUGHERTY, JIM |  |
|                              | Examiner<br>Adam L. Basehoar  | Art Unit<br>2178               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-21,23-41 and 43-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-21,23-41 and 43-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to communications: The Amendment filed 08/08/05 to the original Application filed on 02/22/02.
2. Claims 2, 22, and 42 have been cancelled as necessitated by Amendment.
3. The objection to claims 2, 22, and 42 have been withdrawn as necessitated by Amendment.
4. Claims 1 and 41 remain rejected under 35 U.S.C. 101.
5. Claims 1, 3-6, 8-10, 12-18, 21, 23-26, 28-30, 32-38, 41, 43-46, 48-50, 52-58 remain rejected under 35 U.S.C. 102(e) as being anticipated by Schaefer (US-2003/0084429 05/01/03).
6. Claims 7, 11, 19-20, 27, 31, 39-40, 47, 51, and 59-60 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer (US-2003/0084429 05/01/03).
7. Claims 1, 3-21, 23-41, and 43-60 are pending in this case. Claims 1, 21, and 41 are independent claims.

### ***Claim Rejections - 35 USC § 101***

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 1 and 41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In regard to claim 1, the language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technology art, environment or machine which could result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35

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U.S.C. 101. In regard to claim 41, the claim raises issue to whether all of the claimed elements and features of the apparatus could be implemented in software alone. As such, claim 41 is rejected under 35 U.S.C. 101 as not being tangibly embodied.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1, 3-6, 8-10, 12-18, 21, 23-26, 28-30, 32-38, 41, 43-46, 48-50, 52-58 are rejected under 35 U.S.C. 102(e) as being anticipated by Schaefer (US-2003/0084429 05/01/03).

In regard to independent claims 1, 21, and 41, Schaefer teaches a method, system, and computer program product comprising:

reading data containing a set of test specifications, wherein the data was in a structured format (Page 3: Paragraph 0048: "Each GUI map 230 may include hierarchically organized information");

assembling a variable list from values contained in the data (Pages 8 & 9, Paragraphs 0101-0103: "an "X" where output data...for the test case");

writing the variable list into a data structure of the test software (i.e. a variable list of X's are displayed/represented in the data structure and are replaced with the actual data

when the test case was executed)(Page 9, Paragraph 0103: list saved in structured tables in storage database) operating on a computer (Fig. 1: 100);

creating a set of testing instructions by translating the data from the structured format into a second format for use in the test software (Page 3: Paragraphs 0049-0050: “translate GUI map into a set of tables” & “the data tables...one or more test cases”)(Also Note: Paragraphs 0036-0038); and

sending electronic signals to the electronic equipment (Fig. 1: 100) in accordance with the set of testing instructions (Paragraph 0010: “execute the software program according to the execution path based on the test case and the user interface map;.....the execution path).

In regard to dependent claims 3, 23, and 43, Schaefer teaches wherein the data structure was contained within a file on a storage device (Page 3: Paragraphs 0041-0043: “GUI map”).

In regard to dependent claims 4, 24, and 44, Schaefer teaches wherein the data structure was contained in memory (Page 3: Paragraphs 0041-0043)(Fig. 1: 120 & 130).

In regard to dependent claims 5, 25, and 45, Schaefer teaches wherein the structured format was a table (Page 2: Paragraph 0037: “translate one or more GUI maps into a set of database tables”).

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In regard to dependent claims 6, 26, and 46, Schaefer teaches wherein the table was in a spreadsheet document (Pages 4 & 9: Paragraph 0053: "Data import utility....Microsoft Excel file." & Paragraph 0105: "from a Microsoft Excel spreadsheet....in the database 135.").

In regard to dependent claims 8, 28, and 48, Schaefer teaches wherein the spreadsheet document was in Microsoft Excel format (Pages 4 & 9: Paragraph 0053: "Data import utility....Microsoft Excel file." & Paragraph 0105: "from a Microsoft Excel spreadsheet....in the database 135.").

In regard to dependent claims 9, 29, and 49, Schaefer teaches wherein the table was embedded in a word-processor document (Page 3: Paragraph 0048: "A GUI map may be.....into a text file.").

In regard to dependent claims 10, 30, and 50, Schaefer teaches wherein the structured format was in a markup language (Paragraph 3: Paragraph 0047: "Java, Hypertext Markup Language ("HTML")....etc.").

In regard to dependent claims 12, 32, and 52, Schaefer teaches:  
determining whether a particular test specification was absent from the data (Page 8: Paragraph 0095: "To make a request....push the "New" button 1010")(i.e. is it a new test case?);  
and

if absent from the data (i.e. it is a new test case), supplying a default value (“1”) for the particular test specification (Page 8: Paragraph 0095: “Data input component...to a default value of 1.”).

In regard to dependent claims 13, 33, and 53, Schaefer teaches wherein the data included master rules that established constants (Paragraphs 0091-0093: “Constants script 900”)(Fig. 9A).

In regard to dependent claims 14, 34, and 54, Schaefer teaches wherein the data includes product code information (Page 1: Paragraph 0004: “releasing a version”) or product platform (Page 8: Paragraph 0097).

In regard to dependent claims 15, 35, and 55, Schaefer teaches wherein the data includes a plurality of tests (Page 9: Paragraphs 0107-0108: “For each of the retrieved test cases”).

In regard to dependent claims 16, 36, and 56, Schaefer teaches wherein the tests are associated with test conditions (i.e. test data)(Pages 9-10: Paragraphs 0105-0115).

In regard to dependent claims 17, 37, and 57, Schaefer teaches initiating execution of the test software to use data in the second format (Pages 2 & 9: Paragraphs 0011 & 0107-0108).

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In regard to dependent claims 18, 38, and 58, Schaefer teaches wherein the test specifications are associated with a machine (Pages 2 & 3: Paragraphs 0039-0049)(i.e. associated with the automation system 100).

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 7, 11, 19-20, 27, 31, 39-40, 47, 51, and 59-60 rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer (US-2003/0084429 05/01/03).

In regard to dependent claims 7, 27, and 47, Schaefer teaches wherein the spreadsheet file was a Microsoft Excel formatted file (Pages 4 & 9: Paragraph 0053: "Data import utility....Microsoft Excel file." & Paragraph 0105: "from a Microsoft Excel spreadsheet....in the database 135."). Schaefer also teaches wherein a plurality of test cases could be run (Page 9: Paragraph 0108). Schaefer does not teach wherein the Microsoft spreadsheet file contained a plurality of worksheets. It would have been obvious to one of ordinary skill in the art at the time of the invention for the Microsoft Excel spreadsheets to have had a plurality of worksheets, because it was notoriously well known at the time of the invention for Microsoft Excel spreadsheets (e.g. See Microsoft Excel 2000) to provide a plurality of worksheets to group



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similar data which would have provided the benefit of organizing all the test cases of Schaefer into a single test file.

In regard to dependent claims 11, 31, and 51, Schaefer teaches wherein the markup language was HTML (Paragraph 3: Paragraph 0047: “Java, Hypertext Markup Language (“HTML”)....etc.”). Schaefer does not teach wherein the markup language was XML. It would have been obvious to one of ordinary skill in the art at the time of the invention for Schaefer to have used the XML format, because XML was notoriously well known in the art to provide the benefit of being a simple dialect of SGML for providing generic SGML to be served, received, and processed on the Web. XML also provides ease of implementation and for interoperability with both SGML and HTML (e.g. [www.w3c.org](http://www.w3c.org)).

In regard to dependent claims 19-20, 39-40, and 59-60, Schaefer teaches wherein the test specifications were associated with at machine (Pages 2 & 3: Paragraphs 0039-0049)(i.e. associated with the automation system 100). Schaefer does not explicitly teach wherein the test specifications were associated with either a circuit or a power supply. It would have been obvious to one of ordinary skill in the art at the time of the invention for the associated machine of Schaefer to have included a circuit and a power supply, because it was notoriously well known in the art at the time that the associated machine of Schaefer (i.e. personal computer, hand-held device, etc.) (Pages 2 & 3: Paragraphs 0039-0049) would include circuits and a power supply for each of said machines to remain functional.

***Response to Arguments***

14. Applicant's arguments filed 08/08/05 have been fully considered but they are not persuasive.

-In regard to the rejection of independent claims 1 and 41, the Applicant argues that said claims are statutory at least in view of the "functional interrelationships" established by the newly amended subject matters. The examiner respectfully disagrees with the Applicant and believes the rejection of the claims is proper. Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. In view of the present claims, while the test software was "operating on a computer, the data structure of the test software is not tangibly embodied on a computer readable medium.

-In regard to independent claims 1, 21, and 41, Applicant argues that Schaefer fails to teach the newly amended limitations "creating a set of testing instructions" and using said testing instructions to test one or more electrically tested pieces of equipment. The Examiner respectfully disagrees with the Applicant and believes, as claimed, Schaefer teaches said

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limitations. Schaefer teaches “creating a set of testing instructions” via translating the first structured format into a second usable format (Page 3: Paragraphs 0049-0050: “translate GUI map into a set of tables” & “the data tables...one or more test cases”)(Also Note: Paragraphs 0036-0038). Then based on the translated GUI map and the imported or variable test case data the software program is then executed (Page 1: Paragraph: 0010). The Examiner also believes Schaefer teaches “sending electronic signals to the electronic equipment.” Clearly Schaefer teaches a computer based automation system (Fig. 1: 100)(Pages 2-3: Paragraphs 0039-0040), wherein data was processed utilizing inherent electrical signals between different electrical equipment (e.g. processor, memory, etc). While Schaefer is directed to developing software testing, the Examiner notes the “electronic equipment” as recited in the independent claims are being given the broadest reasonable interpretation, and as such said limitation is met by the Schaefer reference.

-In regard to dependent claims 7, 11, 19-20, 27, 31, 39-40, 47, 51, and 59-60, the Applicant argues that Schaefer in view of what was notoriously well known in the art at the time of the invention does not teach or suggest the newly amended claim limitation as show above (i.e. “creating a set of testing instructions” and “sending electronic signals to...electronic equipment”). Please note the comments in the above paragraph regarding Schaefer teaching said new limitations.

### ***Conclusion***

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam L. Basehoar whose telephone number is (571)-272-4121. The examiner can normally be reached on M-F: 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ALB

*William L. Bashore*  
WILLIAM BASHORE  
PRIMARY EXAMINER

*10/30/2005*